

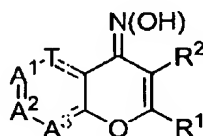
Applicants: Jeremy Green et al.  
 Application No.: 10/808,678

### AMENDMENTS TO THE CLAIMS

Please replace all prior versions and listings of claims with the amended claims as follows:

1-46. (Canceled)

47. (Currently amended) A composition comprising an effective amount of a compound of ~~claim 1~~ formula I:



I

or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier, adjuvant, or vehicle, wherein:

R<sup>1</sup> is -(L)<sub>m</sub>R-, -(L)<sub>m</sub>Ar<sup>1</sup>-, or -(L)<sub>m</sub>Cy<sup>1</sup>-;

L is -S-, -O-, -N(R)-, or a C<sub>1-6</sub> alkylidene chain wherein up to two non-adjacent methylene units of L are optionally and independently replaced by -S-, -O-, -N(R)-, -N(R)C(O)-, -N(R)C(S)-, -N(R)C(O)N(R)-, -N(R)C(S)N(R)-, -N(R)CO<sub>2</sub>-, -C(O)-, -CO<sub>2</sub>-, -C(O)N(R)-, -C(S)N(R)-, -OC(O)N(R)-, -SO<sub>2</sub>-, -SO<sub>2</sub>N(R)-, -N(R)SO<sub>2</sub>-, -N(R)SO<sub>2</sub>N(R)-, -C(R)=NN(R)-, -C(R)=N-O(R)-, -C(O)C(O)-, or -C(O)CH<sub>2</sub>C(O)-;

m is 0 or 1;

Ar<sup>1</sup> is an optionally substituted 5-7 membered monocyclic ring or an 8-10 membered bicyclic ring having 0-5 heteroatoms independently selected from nitrogen, oxygen, or sulfur;

Cy<sup>1</sup> is an optionally substituted 3-7 membered saturated or partially unsaturated monocyclic ring having 0-3 heteroatoms independently selected from nitrogen,

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oxygen, or sulfur, or an 8-10 membered saturated or partially unsaturated bicyclic ring system having 0-5 heteroatoms independently selected from nitrogen, oxygen, or sulfur, wherein;

Ar<sup>1</sup> and Cy<sup>1</sup> are each optionally substituted with up to 5 occurrences of Z-R<sup>X</sup>;

wherein

each occurrence of Z is independently a bond or a C<sub>1-6</sub> alkylidene chain,

wherein up to two non-adjacent methylene units of Z are optionally replaced by -S-, -O-, -N(R)-, -N(R)C(O)-, -N(R)C(S)-, -N(R)C(O)N(R)-, -N(R)C(S)N(R)-, -N(R)CO<sub>2</sub>-, -C(O)-, -CO<sub>2</sub>-, -C(O)N(R)-, -C(S)N(R)-, -OC(O)N(R)-, -SO<sub>2</sub>-, -SO<sub>2</sub>N(R)-, -N(R)SO<sub>2</sub>-, -N(R)SO<sub>2</sub>N(R)-, -C(R)=NN(R)-, -C(R)=N-O(R)-, -C(O)C(O)-, or -C(O)CH<sub>2</sub>C(O)-;

each occurrence of R<sup>X</sup> is independently selected from -R', halogen, NO<sub>2</sub>, CN,

-OR', -SR', -N(R')<sub>2</sub>, -N(R')C(O)R', -N(R')C(S)R', -N(R')C(O)N(R')<sub>2</sub>, -N(R')C(S)N(R')<sub>2</sub>, -N(R')CO<sub>2</sub>R', -C(O)R', -C(S)R', -CO<sub>2</sub>R', -OC(O)R', -C(O)N(R')<sub>2</sub>, -C(S)N(R')<sub>2</sub>, -OC(O)N(R')<sub>2</sub>, -S(O)R', -SO<sub>2</sub>R', -S(O)<sub>3</sub>R', -SO<sub>2</sub>N(R')<sub>2</sub>, -N(R')SO<sub>2</sub>R', -N(R')SO<sub>2</sub>N(R')<sub>2</sub>, -C(O)C(O)R', -C(O)CH<sub>2</sub>C(O)R', -NR'NR'C(O)R', -NR'NR'C(O)N(R')<sub>2</sub>, -NR'NR'CO<sub>2</sub>R', -C(O)N(R')R', -C(NOR')R', -S(O)<sub>3</sub>R', -N(OR')R', -C(=NH)-N(R')<sub>2</sub>; or -(CH<sub>2</sub>)<sub>0-2</sub>NHC(O)R'; wherein

each occurrence of R is independently hydrogen or an optionally substituted

C<sub>1-6</sub> aliphatic group,

each occurrence of R' is independently hydrogen or an optionally substituted

C<sub>1-6</sub> aliphatic group, an optionally substituted C<sub>6-10</sub> aryl ring, an optionally substituted heteroaryl ring having 5-10 ring atoms, or an optionally substituted heterocyclyl ring having 3-10 ring atoms; or

R and R' or two occurrences of either R or R' are taken together with the atoms to which they are bound to form an optionally

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substituted 5-8 membered saturated, partially unsaturated, or aryl ring having 0-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur; or

two occurrences of either R' or R on the same nitrogen are taken together with the nitrogen atom to which they are bound to form an optionally substituted 5-8 membered saturated, partially unsaturated, or aryl ring having 1-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur;

R<sup>2</sup> is hydrogen, CN, -SR, -OR, -CO<sub>2</sub>R, -OC(O)R, -C(O)R, -C(O)N(R)<sub>2</sub>, -N(R)<sub>2</sub>, -N(R)C(O)R, or an optionally substituted C<sub>1-6</sub> aliphatic group;

T is CR<sup>3</sup>;

each of A<sup>1</sup>, A<sup>2</sup>, and A<sup>3</sup> is, independently, CR<sup>4</sup>;

R<sup>3</sup> is selected from hydrogen, halogen, NO<sub>2</sub>, CN, -SR, -OR, -N(R)<sub>2</sub>, or an optionally substituted C<sub>1-6</sub> aliphatic group; and

R<sup>4</sup> is selected from halogen, NO<sub>2</sub>, CN, -(L)<sub>m</sub>R, -(L)<sub>m</sub>Ar<sup>1</sup>, or -(L)<sub>m</sub>Cy<sup>1</sup>; or

two R<sup>4</sup> groups on adjacent atoms are taken together to form an optionally substituted 5-7 membered partially unsaturated or fully unsaturated ring having 0-3 heteroatoms independently selected from oxygen, sulfur, or nitrogen, wherein;

each ring formed by two R<sup>4</sup> groups on adjacent atoms taken together is optionally substituted with up to 4 occurrences of Z-R<sup>X</sup>.

48. (Canceled)

49. (Original) The composition of claim 47, additionally comprising a therapeutic agent selected from a chemotherapeutic or anti-proliferative agent, an anti-inflammatory agent, an immunomodulatory or immunosuppressive agent, a neurotrophic factor, an

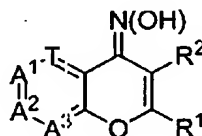
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agent for treating cardiovascular disease, an agent for treating destructive bone disorders, an agent for treating liver disease, an anti-viral agent, an agent for treating blood disorders, an agent for treating diabetes, or an agent for treating immunodeficiency disorders.

50. (Currently amended) A method of inhibiting CDK-2, cMET, FLT-3, JAK-3, GSK-3, IRAK-4, SYK, p70S6K, TAK-1, or ZAP-70 kinase activity in[[:]]

(a) a patient; or

(b) a biological sample, wherein said biological sample is selected from a cell culture, biopsied material obtained from a mammal, saliva, urine, feces, semen, or tears, or an extract thereof; which method comprises administering to said patient, or contacting said biological sample with a composition according to claim 47 or [[:]] a compound of formula I:



I

or a pharmaceutically acceptable salt thereof, wherein:

R<sup>1</sup> is -(L)<sub>m</sub>R, -(L)<sub>m</sub>Ar<sup>1</sup>, or -(L)<sub>m</sub>Cy<sup>1</sup>;

L is -S-, -O-, -N(R)-, or a C<sub>1-6</sub> alkylidene chain wherein up to two non-adjacent methylene units of L are optionally and independently replaced by -S-, -O-, -N(R)-, -N(R)C(O)-, -N(R)C(S)-, -N(R)C(O)N(R)-, -N(R)C(S)N(R)-, -N(R)CO<sub>2</sub>-, -C(O)-, -CO<sub>2</sub>-, -C(O)N(R)-, -C(S)N(R)-, -OC(O)N(R)-, -SO<sub>2</sub>-, -SO<sub>2</sub>N(R)-, -N(R)SO<sub>2</sub>-, -N(R)SO<sub>2</sub>N(R)-, -C(R)=NN(R)-, -C(R)=N-O(R)-, -C(O)C(O)-, or -C(O)CH<sub>2</sub>C(O)-;

m is 0 or 1;

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Ar<sup>1</sup> is an optionally substituted 5-7 membered monocyclic ring or an 8-10 membered bicyclic ring having 0-5 heteroatoms independently selected from nitrogen, oxygen, or sulfur;

Cy<sup>1</sup> is an optionally substituted 3-7 membered saturated or partially unsaturated monocyclic ring having 0-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur, or an 8-10 membered saturated or partially unsaturated bicyclic ring system having 0-5 heteroatoms independently selected from nitrogen, oxygen, or sulfur, wherein;

Ar<sup>1</sup> and Cy<sup>1</sup> are each optionally substituted with up to 5 occurrences of Z-R<sup>X</sup>, wherein

each occurrence of Z is independently a bond or a C<sub>1-6</sub> alkylidene chain,

wherein up to two non-adjacent methylene units of Z are optionally replaced by -S-, -O-, -N(R)-, -N(R)C(O)-, -N(R)C(S)-, -N(R)C(O)N(R)-, -N(R)C(S)N(R)-, -N(R)CO<sub>2</sub>-, -C(O)-, -CO<sub>2</sub>-, -C(O)N(R)-, -C(S)N(R)-, -OC(O)N(R)-, -SO<sub>2</sub>-, -SO<sub>2</sub>N(R)-, -N(R)SO<sub>2</sub>-, -N(R)SO<sub>2</sub>N(R)-, -C(R)=NN(R)-, -C(R)=N-O(R)-, -C(O)C(O)-, or -C(O)CH<sub>2</sub>C(O)-;

each occurrence of R<sup>X</sup> is independently selected from -R', halogen, NO<sub>2</sub>, CN,

-OR', -SR', -N(R')<sub>2</sub>, -N(R')C(O)R', -N(R')C(S)R', -N(R')C(O)N(R')<sub>2</sub>, -N(R')C(S)N(R')<sub>2</sub>, -N(R')CO<sub>2</sub>R', -C(O)R', -C(S)R', -CO<sub>2</sub>R', -OC(O)R', -C(O)N(R')<sub>2</sub>, -C(S)N(R')<sub>2</sub>, -OC(O)N(R')<sub>2</sub>, -S(O)R', -SO<sub>2</sub>R', -S(O)<sub>3</sub>R', -SO<sub>2</sub>N(R')<sub>2</sub>, -N(R')SO<sub>2</sub>R', -N(R')SO<sub>2</sub>N(R')<sub>2</sub>, -C(O)C(O)R', -C(O)CH<sub>2</sub>C(O)R', -NR'NR'C(O)R', -NR'NR'C(O)N(R')<sub>2</sub>, -NR'NR'CO<sub>2</sub>R', -C(O)N(OR')R', -C(NOR')R', -S(O)<sub>3</sub>R', -N(OR')R', -C(=NH)-N(R')<sub>2</sub>; or -(CH<sub>2</sub>)<sub>0-2</sub>NHC(O)R'; wherein

each occurrence of R is independently hydrogen or an optionally substituted C<sub>1-6</sub> aliphatic group,

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each occurrence of R' is independently hydrogen or an optionally substituted C<sub>1-6</sub> aliphatic group, an optionally substituted C<sub>6-10</sub> aryl ring, an optionally substituted heteroaryl ring having 5-10 ring atoms, or an optionally substituted heterocyclyl ring having 3-10 ring atoms; or

R and R' or two occurrences of either R or R' are taken together with the atoms to which they are bound to form an optionally substituted 5-8 membered saturated, partially unsaturated, or aryl ring having 0-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur; or

two occurrences of either R' or R on the same nitrogen are taken together with the nitrogen atom to which they are bound to form an optionally substituted 5-8 membered saturated, partially unsaturated, or aryl ring having 1-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur;

R<sup>2</sup> is hydrogen, CN, -SR, -OR, -CO<sub>2</sub>R, -OC(O)R, -C(O)R, -C(O)N(R)<sub>2</sub>, -N(R)<sub>2</sub>, -N(R)C(O)R, or an optionally substituted C<sub>1-6</sub> aliphatic group;

T is CR<sup>3</sup>;

each of A<sup>1</sup>, A<sup>2</sup>, and A<sup>3</sup> is, independently, CR<sup>4</sup>;

R<sup>3</sup> is selected from hydrogen, halogen, NO<sub>2</sub>, CN, -SR, -OR, -N(R)<sub>2</sub>, or an optionally substituted C<sub>1-6</sub> aliphatic group; and

R<sup>4</sup> is selected from halogen, NO<sub>2</sub>, CN, -(L)<sub>m</sub>R, -(L)<sub>m</sub>Ar<sup>1</sup>, or -(L)<sub>m</sub>Cy<sup>1</sup>; or

two R<sup>4</sup> groups on adjacent atoms are taken together to form an optionally substituted 5-7 membered partially unsaturated or fully unsaturated ring having 0-3 heteroatoms independently selected from oxygen, sulfur, or nitrogen, wherein;

each ring formed by two R<sup>4</sup> groups on adjacent atoms taken together is optionally substituted with up to 4 occurrences of Z-R<sup>x</sup>

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- a) ~~a composition of claim 47; or~~
- b) ~~a compound of claim 1.~~

51. (Currently amended) The method of claim 50, wherein the method comprises inhibiting CDK-2, cMET[[],] ~~FLT-3, JAK-3, GSK-3, IRAK-4, SYK, p70S6K, TAK-1, or ZAP-70~~ activity.

52. (Currently amended) A method of treating or lessening the severity of a disease or [[of]] condition selected from cancer[[],] or a proliferative disorder, ~~a cardiac disorder, a neurodegenerative disorder, an autoimmune disorder, a condition associated with organ transplant, an inflammatory disorder, an immunologically mediated disorder, a viral disease, or a bone disorder,~~ comprising the step of administering to said patient[[:]]  
[[a)]] a composition of claim 47; ~~or~~  
b) ~~a compound of claim 1.~~

53. (Original) The method according to claim 52, comprising the additional step of administering to said patient an additional therapeutic agent selected from a chemotherapeutic or anti-proliferative agent, an anti-inflammatory agent, an immunomodulatory or immunosuppressive agent, a neurotrophic factor, an agent for treating cardiovascular disease, an agent for treating destructive bone disorders, an agent for treating liver disease, an anti-viral agent, an agent for treating blood disorders, an agent for treating diabetes, or an agent for treating immunodeficiency disorders, wherein:  
said additional therapeutic agent is appropriate for the disease being treated; and  
said additional therapeutic agent is administered together with said composition as a single dosage form or separately from said composition as part of a multiple dosage form.

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54. (Currently amended) The method according to claim 52, wherein said disease is cancer, ~~Alzheimer's disease, restenosis, angiogenesis, glomerulonephritis, cytomegalovirus, HIV, herpes virus, varicella-zoster virus, human cytomegalovirus, psoriasis, atherosclerosis, inflammatory bowel disease, sepsis, alopecia, rheumatoid arthritis, diabetes, manic-depressive disorder, neurodegenerative and neurological diseases, cardiomyocyte hypertrophy, autoimmune diseases, inflammatory diseases, metabolic diseases, cardiovascular diseases, diabetes, Huntington's disease, Parkinson's disease, AIDS-associated dementia, multiple sclerosis (MS), schizophrenia, reperfusion/ischemia, stroke, baldness, acute-myelogenous leukemia (AML, Lou Gehrig's disease), acute lymphocytic leukemia (ALL), or mastocytosis and gastrointestinal stromal tumor (GIST), hematopoietic disorders, in particular, acute promyelocytic leukemia (APL), osteoporosis, hepatitis B virus, proliferative and hyperproliferative diseases, immunologically-mediated diseases including rejection of transplanted organs or tissues and Acquired Immunodeficiency Syndrome (AIDS), reversible obstructive airways diseases including asthma, such as bronchial, allergic, intrinsic, extrinsic and dust asthma, particularly chronic or inveterate asthma (e.g. late asthma airways hyper-responsiveness) and bronchitis, those conditions characterised by inflammation of the nasal mucus membrane, including acute rhinitis, allergic, atrophic rhinitis and chronic rhinitis including rhinitis caseosa, hypertrophic rhinitis, rhinitis purulenta, rhinitis sicca and rhinitis medicamentosa, membranous rhinitis including croupous, fibrinous and pseudomembranous rhinitis and serofoulous rhinitis, seasonal rhinitis including rhinitis nervosa (hay fever) and vasomotor rhinitis, sarcoidosis, farmer's lung and related diseases, fibroid lung, and idiopathic interstitial pneumonia.~~

55. (Canceled)

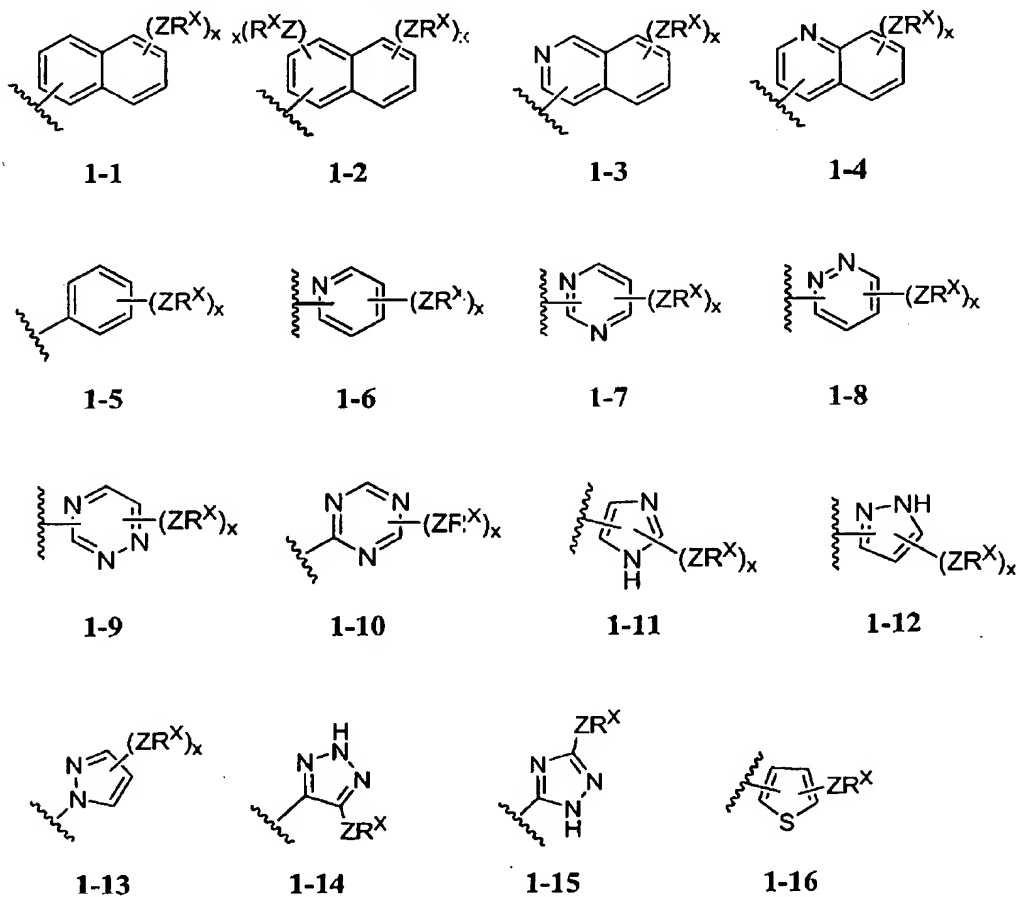


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56. (Currently amended) The method according to claim 52 [[55]], wherein said disease cancer is selected from renal cancer, colon cancer, breast cancer, prostate cancer, hepatic cancer, pancreatic cancer, ovarian cancer, [[or]] lung cancer, or certain B-cell leukemias or lymphomas.

57-58. (Canceled)

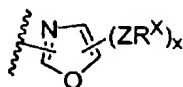
59. (New) The composition according to claim 47, wherein  $R^1$  is  $-(L)_mAr^1$  and  $Ar^1$  is selected from one of the following groups:



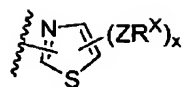
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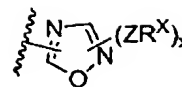
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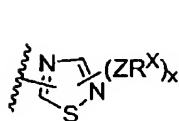
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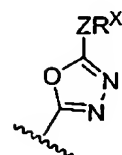
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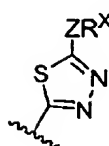
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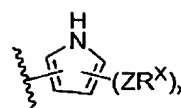
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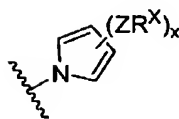
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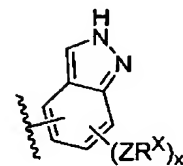
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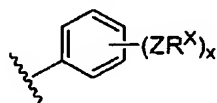


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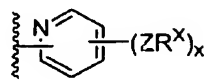


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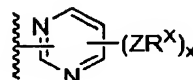
60. (New) The composition according to claim 59, wherein Ar<sup>1</sup> is selected from one of the following groups:



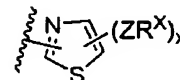
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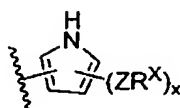
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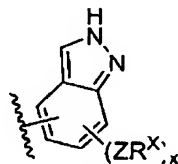
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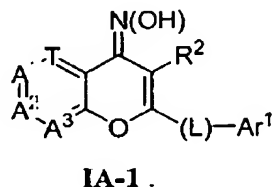
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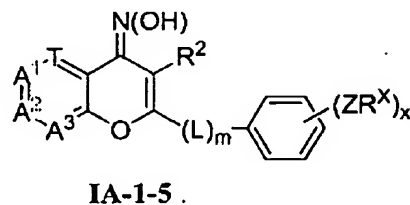
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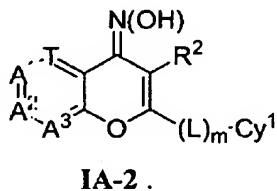
61. (New) The composition according to claim 59, wherein  $R^1$  is  $-(L)_m-Ar^1$ ,  $m$  is 1 and compounds have the formula IA-1:



62. (New) The composition according to claim 59, wherein  $Ar^1$  is phenyl with 0-5 occurrences of  $ZR^X$  and compounds have the formula IA-1-5:

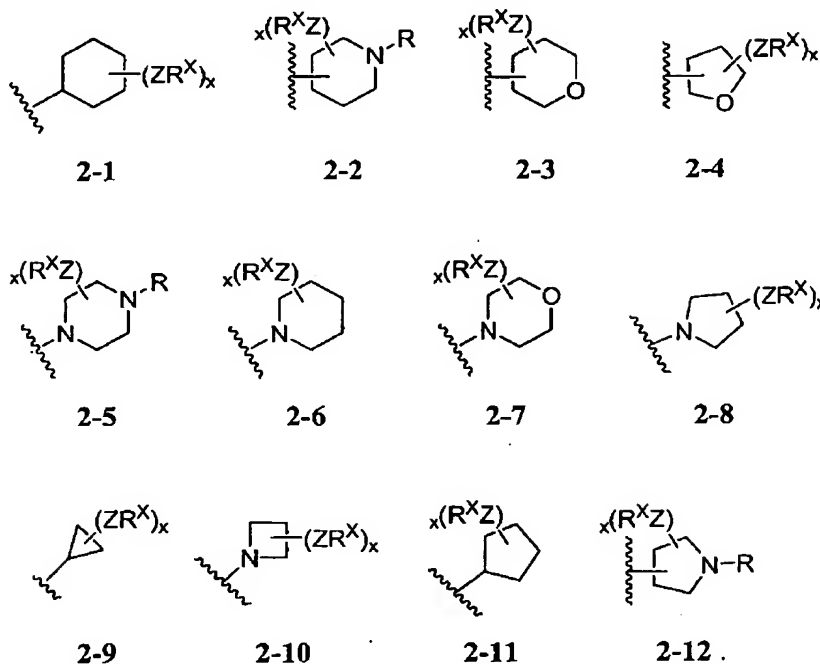


63. (New) The composition according to claim 47, wherein  $R^1$  is  $-(L)_m-Cy^1$  and compounds have the formula IA-2:



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64. (New) The composition according to claim 63, wherein  $Cy^1$  is selected from one of the following groups:



65. (New) The composition according to claim 59, wherein L is an optionally substituted  $C_{1-6}$  straight or branched alkylidene chain wherein one methylene unit of L is optionally replaced by O, NR, NRCO, NRCS, NRCONR, NRCSNR, NR $CO_2$ , CO,  $CO_2$ , CONR, CSNR, OC(O)NR,  $SO_2$ ,  $SO_2NR$ ,  $NRSO_2$ ,  $NRSO_2NR$ , C(O)C(O), or C(O)CH $_2$ C(O).

66. (New) The composition according to claim 65, wherein L is an optionally substituted  $C_{1-6}$  straight or branched alkylidene chain wherein one methylene unit of L is optionally replaced by O, NR, NRCO, CO, CONR,  $SO_2NR$ ,  $NRSO_2$ .

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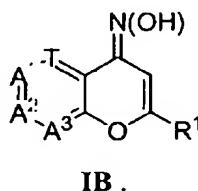
67. (New) The composition according to claim 47, wherein  $R^1$  is  $-(L)_mR$ , L is an optionally substituted  $C_{1-6}$  straight or branched alkylidene chain wherein one methylene unit of L is optionally replaced by O, NR, NRCO, NRCONR, NR $CO_2$ , CO,  $CO_2$ , CONR, OC(O)NR,  $SO_2$ ,  $SO_2NR$ ,  $NRSO_2$ ,  $NRSO_2NR$ , and R is an optionally substituted  $C_{1-6}$  aliphatic group.

68. (New) The composition according to claim 47, wherein  $R^2$  is hydrogen, -CN, -OR, - $CO_2R$ , -OC(O)R, -C(O)R, -C(O)N( $R$ ) $_2$ , -N( $R$ ) $_2$ , -N(R)C(O)R, or an optionally substituted  $C_{1-6}$  aliphatic group.

69. (New) The composition according to claim 68, wherein  $R^2$  is hydrogen or an optionally substituted  $C_{1-6}$  aliphatic group.

70. (New) The composition according to claim 69, wherein  $R^2$  is hydrogen, methyl, ethyl, n-propyl, isopropyl, or cyclopropyl.

71. (New) The composition according to claim 47, wherein  $R^2$  is hydrogen and compounds have the formula **IB**:

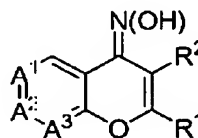


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72. (New) The composition according to claim 47, wherein T is CR<sup>3</sup> and R<sup>3</sup> is hydrogen, halogen, CN, or an optionally substituted C<sub>1-6</sub> aliphatic group.

73. (New) The composition according to claim 72, wherein R<sup>3</sup> is hydrogen, halogen, CF<sub>3</sub>, methyl, ethyl, n-propyl, isopropyl, or cyclopropyl.

74. (New) The composition according to claim 47, wherein T is CR<sup>3</sup>, R<sup>3</sup> is hydrogen and compounds have the formula IC:



IC.

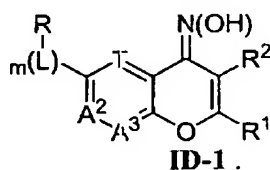
75. (New) The composition according to claim 47, wherein A<sup>1</sup> is CR<sup>4</sup> and R<sup>4</sup> is halogen, CN, -(L)<sub>m</sub>R, -(L)<sub>m</sub>Ar<sup>1</sup>, or -(L)<sub>m</sub>Cy<sup>1</sup>.

76. (New) The composition according to claim 75, wherein L is an optionally substituted C<sub>1-6</sub> straight or branched alkylidene chain wherein one methylene unit of L is optionally replaced by O, NR, NRCO, NRCONR, NRCO<sub>2</sub>, CO, CO<sub>2</sub>, CONR, OC(O)NR, SO<sub>2</sub>, SO<sub>2</sub>NR, NRSO<sub>2</sub>, NRSO<sub>2</sub>NR, C(O)C(O), or C(O)CH<sub>2</sub>C(O).

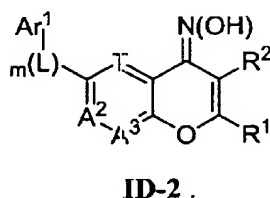
77. (New) The composition according to claim 75, wherein A<sup>1</sup> is CR<sup>4</sup> and R<sup>4</sup> is halogen, CN, or R.

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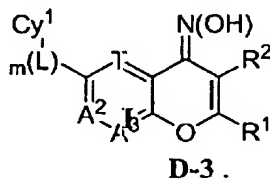
78. (New) The composition according to claim 75, wherein  $A^1$  is  $CR^4$ ,  $R^4$  is  $-(L)_mR$ , and compounds have the formula **ID-1**:



79. (New) The composition according to claim 75, wherein  $A^1$  is  $CR^4$ ,  $R^4$  is  $-(L)_mAr^1$ , and compounds have the formula **ID-2**:



80. (New) The composition according to claim 75, wherein  $A^1$  is  $CR^4$ ,  $R^4$  is  $-(L)_mCy^1$ , and compounds have the formula **ID-3**:



81. (New) The composition according to claim 47, wherein  $A^2$  is  $CR^4$  and  $R^4$  is halogen, CN,  $-(L)_mR$ ,  $-(L)_mAr^1$ , or  $-(L)_mCy^1$ .

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82. (New) The composition according to claim 81, wherein L is an optionally substituted  $C_{1-6}$  straight or branched alkylidene chain wherein one methylene unit of L is optionally replaced by O, NR, NRCO, NRCONR, NR $CO_2$ , CO,  $CO_2$ , CONR, OC(O)NR,  $SO_2$ ,  $SO_2NR$ ,  $NRSO_2$ ,  $NRSO_2NR$ , C(O)C(O), or C(O)CH $_2$ C(O).

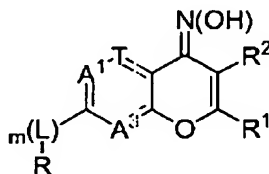
83. (New) The composition according to claim 81, wherein  $A^2$  is  $CR^4$  and  $R^4$  is halogen or R.

84. (New) The composition according to claim 81, wherein  $A^2$  is  $CR^4$  and  $R^4$  is  $-(L)_mR$ , wherein L is -O- or -N(R)-.

85. (New) The composition according to claim 81, wherein  $A^2$  is  $CR^4$ ,  $R^4$  is  $-(L)_mCy^1$ , m is 0 and  $Cy^1$  is 2-2, 2-5, 2-6, 2-7, 2-8, or 2-12.

86. (New) The composition according to claim 81, wherein  $A^2$  is  $CR^4$ ,  $R^4$  is  $-(L)_mAr^1$ , m is 0 and  $Ar^1$  is 1-5, 1-6, 1-11, 1-12, 1-13, 1-19, 1-24, or 1-25.

87. (New) The composition according to claim 81, wherein  $A^2$  is  $CR^4$ ,  $R^4$  is  $-(L)_mR$ , and compounds have the formula IE-1:

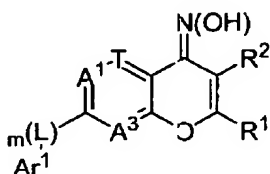


IE-1.



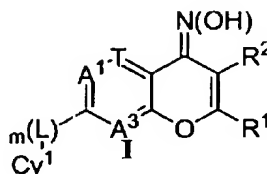
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88. (New) The composition according to claim 81, wherein  $A^2$  is  $CR^4$ ,  $R^4$  is  $-(L)_mAr^1$ , and compounds have the formula **IE-2**:



**IE-2**

89. (New) The composition according to claim 81, wherein  $A^2$  is  $CR^4$ ,  $R^4$  is  $-(L)_mCy^1$ , and compounds have the formula **IE-3**:



**IE-3**

90. (New) The composition according to claim 47, wherein  $A^3$  is  $CR^4$  and  $R^4$  is halogen, CN,  $-(L)_mR$ ,  $-(L)_mAr^1$ , or  $-(L)_mCy^1$ .

91. (New) The composition according to claim 90, wherein L is an optionally substituted  $C_{1-6}$  straight or branched alkylidene chain wherein one methylene unit of L is optionally replaced by O, NR, NRCO, NRCONR, NR $CO_2$ , CO,  $CO_2$ , CONR, OC(O)NR,  $SO_2$ ,  $SO_2NR$ ,  $NRSO_2$ ,  $NRSO_2NR$ , C(O)C(O), or C(O)CH $_2$ C(O).

92. (New) The composition according to claim 90, wherein  $A^3$  is  $CR^4$  and  $R^4$  is halogen or R.

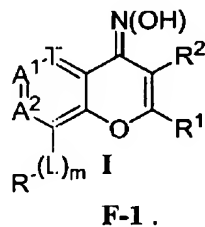
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93. (New) The composition according to claim 90, wherein  $A^3$  is  $CR^4$  and  $R^4$  is  $-(L)_mR$ , wherein L is -O- or -N(R)-.

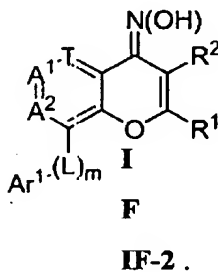
94. (New) The composition according to claim 90,  $A^3$  is  $CR^4$ ,  $R^4$  is  $-(L)_mCy^1$ , m is 0 and  $Cy^1$  is 2-2, 2-5, 2-6, 2-7, 2-8, or 2-12.

95. (New) The composition according to claim 90, wherein  $A^3$  is  $CR^4$ ,  $R^4$  is  $-(L)_mAr^1$ , m is 0 and  $Ar^1$  is 1-5, 1-6, 1-11, 1-12, 1-13, 1-19, 1-24, or 1-25.

96. (New) The composition according to claim 90, wherein  $A^3$  is  $CR^4$ ,  $R^4$  is  $-(L)_mR$ , and compounds have the formula IF-1:

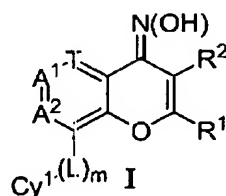


97. (New) The composition according to claim 90, wherein  $A^3$  is  $CR^4$ ,  $R^4$  is  $-(L)_mAr^1$ , and compounds have the formula IF-2:



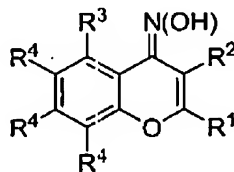
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98. (New) The composition according to claim 90, wherein  $A^3$  is  $CR^4$ ,  $R^4$  is  $-(L)_mCy^1$ , and compounds have the formula IF-3:



IF-3.

99. (New) The composition according to claim 47, wherein T is  $CR^3$ ,  $A^1$ ,  $A^2$  and  $A^3$  are each  $CR^4$  and compounds have the formula IG-1:

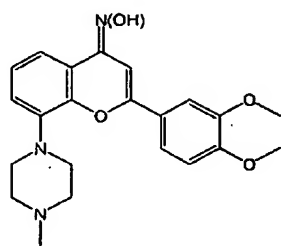
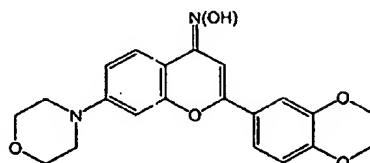
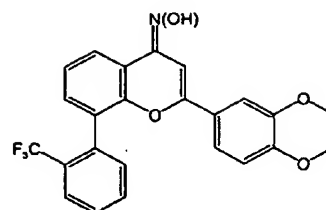
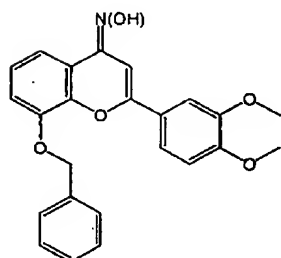
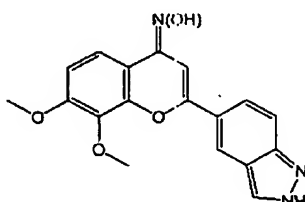
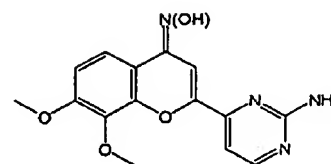
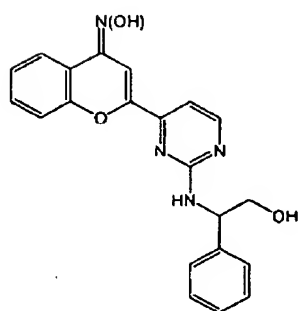
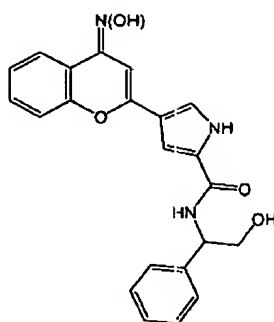
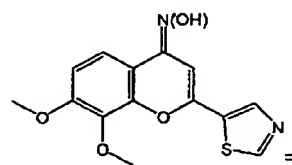


IG-1.

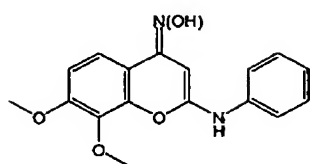
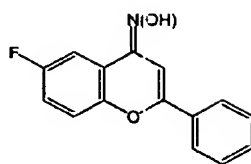
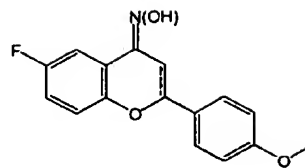
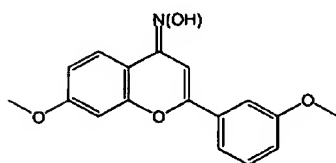
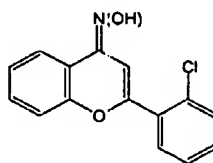
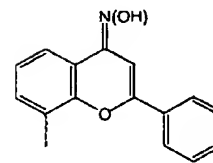
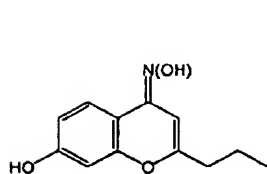
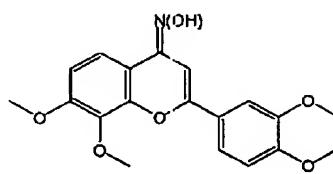
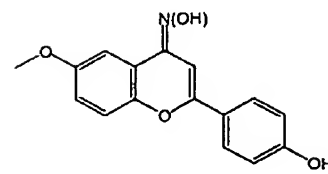
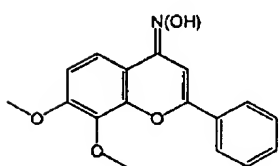
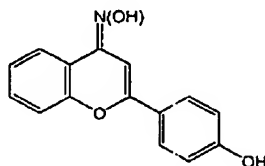
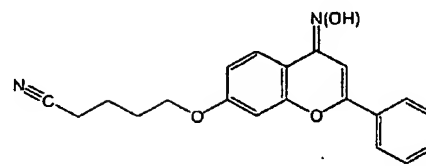
100. (New) The composition according to claim 47, wherein each  $ZR^X$  is independently halogen,  $NO_2$ ,  $CN$ , or an optionally substituted group selected from  $C_{1-4}$  alkyl, aryl, aralkyl,  $-N(R')_2$ ,  $-CH_2N(R')_2$ ,  $-OR'$ ,  $-CH_2OR'$ ,  $-SR'$ ,  $-CH_2SR'$ ,  $-COOR'$ , or  $-S(O)_2N(R')_2$ .

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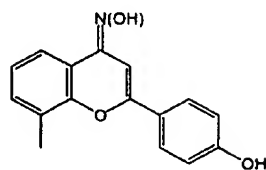
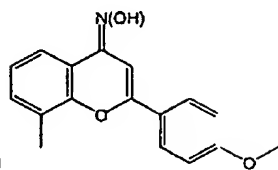
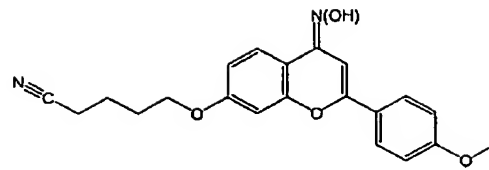
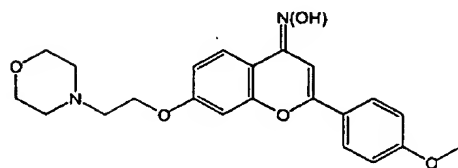
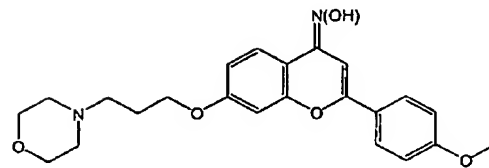
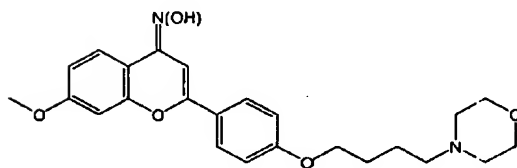
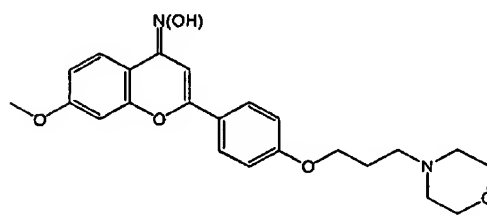
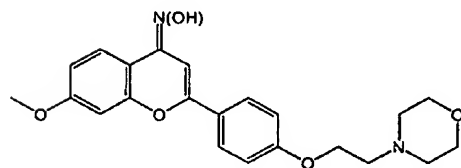
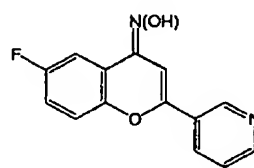
101. (New) The composition according to claim 47, selected from one of the following compounds:

**I-1****I-2****I-3****I-4****I-5****I-6****I-7****I-8****I-9**

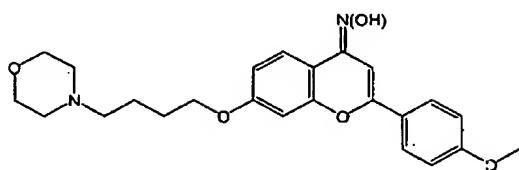
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**I-10****I-11****I-12****I-13****I-14****I-15****I-16****I-17****I-18****I-19****I-20****I-21**

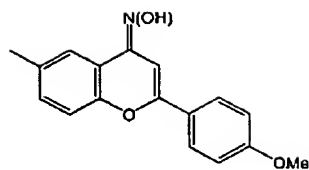
Applicants: Jeremy Green et al.  
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**I-22****I-23****I-24****I-25****I-26****I-27****I-28****I-29****I-30**

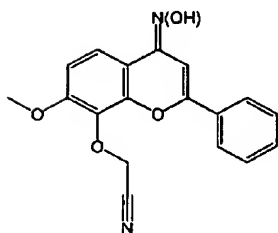
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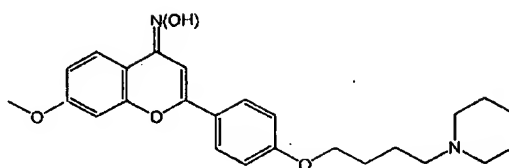
I-31



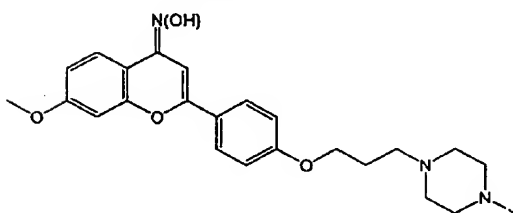
I-32



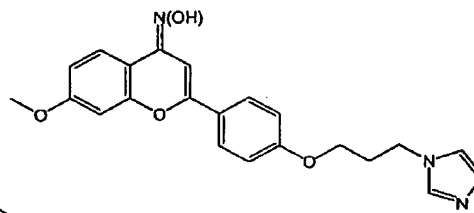
I-33



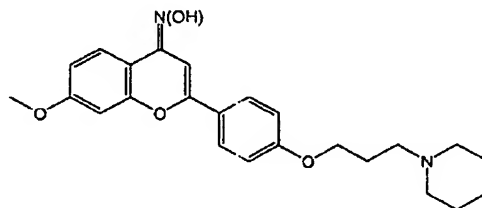
I-34



I-35



I-36



I-37